

Traumatic Brain Injury

What is Traumatic Brain Injury (TBI)?

Arizona Revised Statutes (ARS) §15-761(37) states:
"Traumatic brain injury":

(a) Means an acquired injury to the brain that is caused by an external physical force and that results in total or partial functional disability or psychosocial impairment, or both, that adversely affects educational performance.

(b) Applies to open or closed head injuries resulting in mild, moderate, or severe impairments in one or more areas, including cognition, language, memory, attention, reasoning, abstract thinking, judgment, problem solving, sensory, perceptual and motor abilities, psychosocial behavior, physical functions, information processing, and speech.

(c) Does not include brain injuries that are congenital or degenerative or brain injuries induced by birth trauma."

Two types of conditions qualify under the federal definition for closed or open head injury: 1) direct damage to the brain as a result of physical injury; or 2) damage due to bleeding, swelling, or infection resulting from trauma to the head.

The observed deficits of traumatic brain injury may be grouped in four major areas: physical, cognitive, psychosocial, and executive (planning, organizing, follow through, etc.). Depending on the part of the brain injured and the individual's age at the time of the injury, some problems may not be evident until years later.

Typically, in medical usage, traumatic brain injury refers to the *event* of the injury rather than the *outcome*. Under the Individuals with Disabilities Education Act (IDEA), traumatic brain injury refers to the student's *functioning* and *performance* as a result of the injury.

A student is determined eligible for special education services if: 1) the criteria of the federal definition of a student with a traumatic brain injury is met, and 2)

the multidisciplinary evaluation team determines that the head injury adversely affects a student's educational performance. If a student is not eligible for special education and related services under IDEA, it is possible the student may still qualify as

disabled under Section 504 of the Rehabilitation Act of 1973.

How Common are Traumatic Brain Injuries?

During the 2001-02 school year, 334 Arizona students were classified in the category of Traumatic Brain Injury and received special education services. This number represents 0.010 percent of the 871,127 students enrolled in Arizona public schools as of October 1, 2001

What Effect Does Traumatic Brain Injury Have on a Child?

Head injuries may lead to persistent symptoms, such as: memory problems, attention span problems, lack of energy, disorganization, depression, anxiety, changes in sensory perception, and social/behavioral difficulties. Whereas the symptoms of a mild or moderate traumatic brain injury may diminish over time, a severe traumatic brain injury often results in a permanent disability.

Communication problems linked to TBI may include: reduced hearing acuity, reading comprehension, and verbal or written expression; excessive speech; and focusing inappropriately on subjects.

School re-entry after the trauma is extremely important. The rehabilitation team and school personnel must work together to minimize the stress of the child returning to the classroom. A comprehensive evaluation for possible Assistive Technology (AT) devices will be critical for providing an appropriate educational program. The child's program and IEP may need frequent reviews as recovery/rehabilitation occurs.

References

Hoffman, C. et al. (1993). *Traumatic brain injury*. Presented at the Barrow Neurological Institute Inservice, Deer Valley, AZ.

National Information Center for Children and Youth with Disabilities (NICHCY). (2000). *General information about traumatic brain injury, fact sheet # 18*. Washington, DC.: NICHCY

Slayden, R., MD, et al.(1992) *New disabilities: Traumatic brain injury*. Presented at the LAP Conference, San Antonio, TX.

Books

Shoenbrodt, L. (ed) (2001). *Children with Traumatic Brain Injury: a parent's guide*. Rockville, MD: Woodbine House

Senelick, R., Dougherty, K. 2nd Ed. (2001). *Living with brain injury: A guide for families*. Florence, KY: Delmar Learning.

Swanson, K. (199). *I'll carry the fork! Recovering a life after brain injury*. Scotts Valley, CA: Risingdu Star Press.

Tyler, J.S., Mira, M.P.(1999). *Traumatic Brain Injury in children and adolescents: A sourcebook for teachers and other school personnel*. Sarasota, FL: Pro-Ed

Organizations/Hotlines/Websites

American Trauma Society, 8903 Presidential Pkwy., Ste. 512, Upper Marlboro, MD 20772, 301-420-4189 or 800-556-7890

Arizona Department of Health Services (ADHS) Injury and Disability Prevention 2700 N. 3rd St., Suite 4050, Phoenix, AZ 85004, 602-542-7340; Fax 602-542-7351
<http://www.hs.state.az.us/>

Barrow Neurological Institute, St. Joseph's Hospital. 222 W Thomas Rd. #401, Phoenix, AZ 85013, 602-406-3000 , <http://www.thebn.com/>

Brain Injury Association, www.biausa.org of America, 105 N. Alfred St., Alexandria, VA 22314, Helpline 800-444-6443 of Arizona, P.O. Box 44791, Phoenix, AZ 85064, 602-323-9165, 888-305-0073

Center for Neuro Skills, <http://www.neuroskills.com/>

Center for Assistive Technology & Environmental Access, (CATEA) 490 Tenth St., Atlanta, GA 30332-0156, 404-894-4960 <http://www.catea.org/>

Easter Seal Society of Arizona, 903 N. 2nd St., Phoenix, AZ 85004-1996, 602-252-6061, <http://www.easter-seals.org/>

Focus Adolescent Services, <http://www.focusas.com/>

Internet Mental Health, 601 W. Broadway, Suite 902, Vancouver, B.C., Canada, 604-876-2254 <http://www.mentalhealth.com/>

National Foundation for Brain Research, 1250 24th St. NW, Ste. 300, Washington, DC 20037 202-293-5453, <http://www.brainnet.org/>

National Rehabilitation Information Center (NARIC), 4200 Forbes Blvd. Ste. 202 Lanham MD 20706, 800-346-2742 301-459-5900, <http://www.naric.com/>

Office for Children with Special Health Care Needs, 2927 N. 35th Ave., Phoenix, AZ 85017, 602-542-1860
<http://www.hs.state.az.us/phs/ocshcn/index.htm>

Parent Information Network, Arizona Department of Education, Exceptional Student Services, 1535 W. Jefferson, Phoenix, AZ 85007, 602-364-4015 or 800-352-4558, <http://www.ade.az.gov/ess/pinspals/>

Social Security Administration, 800-772-1213

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